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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/019,297	05/07/2002	Toshio Takagi	011700	8814

38834 7590 02/04/2005

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EXAMINER	
CECIL, TERRY K	

ART UNIT	PAPER NUMBER
1723	

DATE MAILED: 02/04/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/019,297	TAKAGI ET AL.	
	Examiner	Art Unit	
	Mr. Terry K. Cecil	1723	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *21 October 2004*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-27* is/are pending in the application.

4a) Of the above claim(s) *3 and 17-22* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-2, 4-16 and 23-27* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *10/2004*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Because of applicant's amendments to claim 14, the specification and drawing objections of the prior office action have been withdrawn.

The IDS filed 10-21-2004 has been considered. However, it is noted that 6 references thereof have been crossed out (on the initialed copy), since these references have already been considered as indicated on either a former IDS or form 892.

Applicant's election of Species I, claims 1, 2, 4-16 and 23-27 is acknowledged. Claims 3 and 17-22 have been withdrawn.

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 23-27 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The claims are indefinite since "said water quality purification material" in lines 2-3 of claim 23 lacks antecedent basis. Claims 24-27 are rejected since they suffer the same defects as the claim from which they depend.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1 –2, 5 – 6, 10, 15 – 16 and 23-24 and 26 are rejected under 35 U.S.C. 102(a) as being anticipated by Burchard et al. (US 5,858,215).

Regarding claim 1, Burchard et al. disclose a filter assembly capable of use as a shower head (10) with a water purification cartridge (360) comprising:

- a holding part (10, 20) formed to have a connection terminal with other parts, and
- a head part (140) having a shower delivery port (spray port, 484, as in figs. 7 & 39 - 42) integrally formed at the tip of the holding part (10, 20), wherein
  - in the holding part, a water quality purification cartridge (360) is incorporated, and there are formed a water purification flow path (defined by conduits 30 through 384 through cartridge 360 and into central portion (392) of the cartridge) which penetrates the water purification cartridge to form a delivery flow path (from 392 to 380) towards the head part (140), and a raw water flow path (from 390 to 368) constituting a flow path placed side by side with the purification cartridge, the raw water flow path forming an inlet side flow path of the water purification flow path on the upstream side and a delivery flow path (via tube 368) towards the

head part on the downstream side *without penetrating the water purification cartridge(*this has been broadly defined by the examiner as the flow of water which does not have to pass through the purifying material of the cartridge), and

- in the head part, the following are *incorporated*: (the term "incorporated" has been defined by the examiner to convey the same meaning that "comprises" does)

  - a flow path switching valve (510, 512, 520) switching between a delivery flow path from the water purification flow path and a delivery flow path from the raw water flow path,

  - a straight delivery port (stream port, 482, 496) provided side by side at a place where the shower delivery port (484, 494) is formed on the downstream side of the flow path switching valve, and

  - a delivery flow switching valve (480, 204, 206, 462-472) switching a delivery flow from the straight delivery port (496) and a delivery flow path from the shower delivery port (494), and

  - the flow path switching valve and the delivery flow switching valve being formed so as to be controlled from outside the head part independently of each other, as in figs. 1 – 7, 39 – 42 & 60 – 62 and cols. 1 - 10.

Regarding claim 2, Burchard et al. have disclosed the limitations of claim 1 above. Burchard et al. also disclose the water purification flow path and the raw water flow path formed by incorporation of the water quality purification cartridge (360, 362) are formed such that a flow path (defined by chamber 384) on the outer periphery of the cartridge is formed as a part of the

raw water flow path, and a flow path from the outer peripheral flow path (384) to a central space (392) formed in the central part of the cartridge (360) via a water purification material (362) provided in the cartridge is formed as a part of the water purification flow path, as in fig. 62 and in col. 6, lines 31 – 65.

Regarding claim 5, Burchard et al. have disclosed the limitations of claim 1 above. Burchard et al. also disclose the flow path switching valve being arranged on the upstream side of a collection section of the water purification flow path and the raw water flow path being provided downstream of the flow path switching valve.

Regarding claim 6, Burchard et al. have disclosed the limitations of claim 1 above. Burchard et al. also disclose an operating part of the flow path switching valve being incorporated in the head part and an operation end (button, 520,208) of the operating part being made to protrude outwards of the head part (140), as in figs. 4 – 5.

Regarding claim 10, Burchard et al. have disclosed the limitations of claim 1 above. Burchard et al. further disclose the delivery flow switching valve being formed comprising an operating part (via buttons 204 & 206) formed so as to be able to switch the flow path from outside of the head part (140), as in figs. 5 & 1 – 3.

Regarding claim 15, Burchard et al. have disclosed the limitations of claim 1 above. Burchard et al. also disclose a hose (19) being connected to a faucet (14) being connected to the connection terminal with said other parts, as in figs. 1 – 2.

Regarding claim 16, Burchard et al. have disclosed the limitations of claim 1 above. Burchard et al. further disclose a delivery port (19, 18) of a faucet (14) being directly connected to the connection terminal with the other parts, as in figs. 1 – 2.

Regarding claims 23-24 and 26, Burchard teaches a cylindrical filter media having an outer diameter that is smaller than the inner diameter of the holding part (figure 4) and a central hole extending through the cartridge (figure 61) [as in claim 23], wherein the central hole is concentric with the central axis of the media and the upstream end of the media is closed (by end cap 370, figure 62) [as in claim 24]. The ends of the cartridge are provided with a portion fitting (the protuberances at the ends) into a cartridge accepting portion in the holding part [as in claim 26].

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

6. Claims 4 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Burchard et al. (215) in view of Corder (US 4,107,046).

Regarding claim 4, Burchard et al. have disclosed the limitations of claim 1 above. Burchard et al. fail to disclose the flow path switching valve being provided with a water purification cut-off valve and a raw water cut-off valve separately.

Corder teaches a similar shower head to that of Burchard et al., the shower head of Corder including a head part (22, 38) and a holding part (20, 40), and further including a flow switching valve (34, 36) in the head part (22, 38) which switches between a delivery flow from a water purification flow path and a delivery flow from a raw water flow path and the flow path switching valve being provided with a water purification cut-off valve and a raw water cut-off valve separately, as in figs. 1 – 3 and in cols. 3 – 5.

It is considered obvious to one of ordinary skill in the art at the time of the invention to modify the flow switching valve of the shower head of Burchard et al., by adding the embodiment taught by Corder, in order to provide an alternative design and effective shower head which allows separate control valves for purified and unpurified water through the shower head, thereby allowing ready dispensing of purified water at any time without fear of dispensing unfiltered water by mistake. The design taught by Corder also allows for simple, inexpensive way of delivering purified water, without use extra or more complex faucet/spigot design such as the one taught by Burchard et al.

Regarding claim 7, the limitation in this claim, namely, "the operation end of said operating part" lacks proper antecedent basis. Burchard et al. have disclosed the limitations of claim 1 above. Burchard et al. fail to disclose the flow path switching valve being formed as an alternating switching cut-off valve having a water purification cut-off valve and a raw water cut-off valve arranged side by side such that a push button is formed as an operation end of an operating part and the flow path being alternately cut off by the push button.
Corder further teaches the flow path switching valve (34, 36) being formed as an alternating switching cut-off valve having a water purification cut-off valve and a raw water cut-off valve arranged side by side such that a push button (44, 42) is formed as an operation end of an operating part and the flow path being alternately cut off by the push button, as in figs. 1 - 3. The same motivation provided above in claim 4 is applied here.

7. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Burchard et al. in view of Corder (046) and Magnenat et al. (US 5,158,234)

Regarding claim 8, Burchard et al. have disclosed the limitations of claim 1 above. Burchard et al. fail to disclose the flow path switching valve being formed as an alternating switching cut-off valve having a water purification cut-off valve and a raw water cut-off valve arranged side by side such that a control lever is formed as an operation end of an operating part and the flow path being alternately cut off by the control lever.

Corder teaches a similar shower head to that of Burchard et al., the shower head of Corder including a head part (22, 38) and a holding part (20, 40), and further including a flow switching valve (34, 36) in the head part (22, 38) which switches between a delivery flow from a water purification flow path and a delivery flow from a raw water flow path and the flow path switching valve being formed as an alternating switching cut-off valve (34, 36) having a water purification cut-off valve and a raw water cut-off valve arranged side by side such that a control means, in the form of a push button, is formed as an operation end of an operating part and the flow path being alternately cut off by the control means/push button, as in figs. 1 – 3 and in cols. 3 – 5.

It is considered obvious to one of ordinary skill in the art at the time of the invention to modify the flow switching valve of the shower head of Burchard et al., by adding the embodiment taught by Corder, in order to provide an alternative design and effective shower head which allows separate control valves for purified and unpurified water through the shower head, thereby allowing ready dispensing of purified water at any time without fear of dispensing unfiltered water by mistake. The design taught by Corder also allows for simple, inexpensive way of delivering purified water, without use extra or more complex faucet/spigot design such as the one taught by Burchard et al.

Burchard et al. as modified by Corder, fail to teach the control means of the flow switching valve being a control lever.

Magnenat et al. teach a shower head similar to that of Burchard et al., the shower head of Magnenat et al. including a flow switching valve (28, 29) being formed as an alternating switching cut off valve operated by a control lever (35, 28), as in figs. 1 – 10 and cols. 1 - 4.

It is considered obvious to one of ordinary skill in the art at the time of the invention to modify the device/shower head, particularly the flow switching valve, of Burchard et al., as modified by Corder, by adding the embodiment taught by Magnenat et al., in order to provide an alternative design for the flow switching valve which is easy to use, simple and does not cost much to manufacture compared to those more complex design of switching valves (like the one taught by Burchard et al. and Corder, which are push button-operated), as in col. 4, lines 31 – 59 and col. 1, lines 37 - 51. Push-button operated devices tend to damage more easily than those with levers after several uses due to uneven and sometimes forceful pushes on the buttons.

8. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Burchard et al. in view of Nguyen et al. (US 6,179,130 B1).

Regarding claim 9, Burchard et al. have disclosed the limitations of claim 1 above. Burchard et al. fail to disclose the water purification cut-off valve and raw water cutoff valve of the alternating switching cut off valve comprising a spherical valving element.

Nguyen et al. teach a similar shower head to that of Burchard et al., the shower head of Nguyen et al. including a head part (46, 60) and a holding part (46, 56) and a flow switching valve (210)

which is formed as an alternating switching cut off valve comprising a spherical valving element, as in figs. 1 – 5 and cols. 4 – 14.

It is considered obvious to one of ordinary skill in the art at the time of the invention to modify the shower head of Burchard et al., particularly the flow switching valve thereof, in lieu of the embodiment taught by Nguyen et al., in order to provide an alternative and improved design for the switching valve, which allows easy manipulation of the shower head for ready dispensing of filtered or unfiltered water and at the same time, provide fast selection of type of fluid to be dispensed by the shower head, as in cols. 1 – 2 of Nguyen et al.

9. Claims 11 – 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Burchard et al. (215) in view of Magnenat et al. (US 5,158,234).

Regarding claim 11, the limitation in this claim, namely, "said operating part" in the last two lines, lacks proper antecedent basis. Burchard et al. have disclosed the limitations of claim 1 above. Burchard et al. fail to disclose the delivery flow switching valve being formed as a cut off valve operated by a lever and comprising a control lever operated from outside of the head part, as an operating part thereof.

Magnenat et al. teach a shower head similar to that of Burchard et al., the shower head of Magnenat et al. including a delivery flow switching valve (28, 29) being formed as a cut off

valve operated by a lever (35, 28) and comprising a control lever (35) operated from outside of the head part, as an operating part thereof, as in figs. 1 – 10 and cols. 1 - 4.

It is considered obvious to one of ordinary skill in the art at the time of the invention to modify the device/shower head, particularly the delivery flow switching valve, of Burchard et al., by adding the embodiment taught by Magnenat et al., in order to provide an improved and alternative design for the delivery flow switching valve which is easy to use, simple and does not cost much to manufacture compared to those more complex design of switching valves (like the one taught by Burchard et al. which is a push button-operated), as in col. 4, lines 31 – 59 and col. 1, lines 37 - 51.

Regarding claim 12, Burchard et al. have disclosed the limitations of claim 1 above. Burchard et al. fail to disclose the delivery flow switching valve being formed comprising a rotary operating part which operates the delivery port from outside of the head part.

Magnenat et al. teach a shower head similar to that of Burchard et al., the shower head of Magnenat et al. including a delivery flow switching valve (28, 29) being formed to comprise a rotary operating part (28, 35) which operates the delivery port (i.e. by selecting a port to dispense either a water stream/spray) from outside of the head part, as in figs. 1 - 10.

It is considered obvious to one of ordinary skill in the art at the time of the invention to modify the device/shower head, particularly the delivery flow switching valve, of Burchard et al., by

adding the embodiment taught by Magnenat et al., in order to provide an improved and alternative design for the delivery flow switching valve which is easy to use, simple and does not cost much to manufacture compared to those more complex design of switching valves (like the one taught by Burchard et al. which is a push button-operated), as in col. 4, lines 31 – 59 and col. 1, lines 37 - 51.

10. Claims 13-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Burchard et al. (215) in view of Gonzalez (US 5,252,206).

Regarding claims 13-14, Burchard et al. have disclosed the limitations of claim 1 above. Burchard et al. fail to disclose a germicidal ceramic and/or a sintered magnetic body being installed in the flow path from the water purification material to the delivery flow switching valve (claim 13).

Gonzalez teaches a filtration cartridge capable of use in the shower head of Burchard et al., the filtration cartridge of Gonzalez further including a germicidal ceramic being installed in the flow path from a water purification material (25) of the cartridge towards a delivery port or a delivery flow switching valve (as in the case when placed in the shower head of Burchard et al.), as in figs. 1 – 2 and cols. 1 - 3.

It is considered obvious to one of ordinary skill in the art at the time of the invention to modify the shower head of Burchard et al, in particular the filtration cartridge thereof, by substituting the cartridge of Burchard et al. in lieu of the filtration cartridge taught by Gonzalez, in order to

provide an improved and alternative filtration cartridge for the shower head of Burchard et al., which not only provides a clean fluid/water by removing unwanted particulates or chemicals/odors removed by the water purification material, but also provides a cleaner and safer water/fluid which removes bacteria and harmful microorganisms with one single cartridge.

11. Claims 25 and 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Burchard in view of Barnard (U.S. 4,540,489). Barnard teaches a silver-impregnated ceramic 28 downstream of and in contact with an end or outer periphery of a filtration media (26+40+38). It is considered that it would have been obvious to one ordinarily skilled in the art at the time of the invention to the ceramic filter media of Barnard in the invention of Burchard, since Barnard teaches the benefit of killing bacteria (abstract).

Response to Arguments

12. Applicant's arguments filed 4-6-2004 have been fully considered but they are not persuasive because of the following reasons:

- Since claim 3 has been withdrawn from consideration and Kanaya was only used in the rejection of claim 3, applicant's arguments concerning Kanaya is irrelevant.
- Since figures 60-63 of Burchard depict the raw flow passage extending centrally through the water filtration cartridge, Applicant argues that Burchard does not anticipate the limitation of claim 1 requiring the raw water flow passage not "penetrating said water quality purification cartridge." However, it is clear from the applicant's specification and dependent claim construction that applicant did not intend this limitation to preclude the raw water flowing

centrally of the cartridge. See the partial paragraph at the top of page 29. In addition applicant's claim 3 (that depends from claim 1) adds the limitation that the raw water flow path include the central space of the cartridge. For these reasons it is clear that the aforementioned limitation means that the raw water flow path does not penetrate the filtration material—as pointed out by the prior examiner.

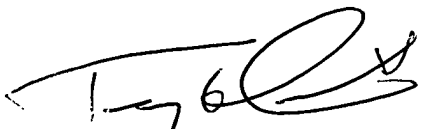
Conclusion

13. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

14. Contact Information:

- Examiner Mr. Terry K. Cecil can be reached at (571) 272-1138 at the Carlisle campus in Alexandria, Virginia for any inquiries concerning this communication or earlier communications from the examiner. Note that the examiner is on the increased flextime schedule but can normally be found in the office during the hours of 8:30a to 4:30p, on at least four days during the week M-F.
- Wanda Walker, the examiner's supervisor, can be reached at (571) 272-1151 if attempts to reach the examiner are unsuccessful.
- The Fax number for this art unit for official faxes is 703-872-9306.
- Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Mr. Terry K. Cecil
Primary Examiner
Art Unit 1723

TKC
February 2, 2005